

What is claimed is:

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1 1. A method for providing a wireless terminal of a
2 communication system access to at least a phonebook
3 database of the system, comprising:
4 (a) for incoming phone calls to said wireless
5 terminal
6 identifying phone number of a caller at said
7 wireless terminal;
8 instructing the system to search said phonebook
9 database to identify name of caller; and
10 sending results of the search to said wireless
11 terminal, such that
12 (i) if caller identity search is successful,
13 identification of caller is presented at said wireless
14 terminal, and
15 (ii) if the caller identity search is not
16 successful, the caller phone number is presented only at
17 said wireless terminal, and
18 (b) for outgoing calls to be made from said
19 wireless terminal
20 instructing the system to search said phonebook
21 database to locate at least one of a phone number and
22 destination of an outgoing call; and
23 sending results of the search to said wireless
24 terminal such that

25 (i) if the phone number/destination of the
26 call to be made is found in the database, the same is
27 presented at said wireless terminal, and
28 (ii) if the phone number/destination is not
29 found in an initial search query of the database, the
30 wireless terminal user, optionally, may modify the search
31 query of the system to the phonebook database or
32 terminate identification process.

1 2. The method according to claim 1,
2 wherein said wireless terminal is continuously
3 maintained in the system to permit uninterrupted
4 accessibility of said phonebook database, and
5 wherein a protocol application is used to allow
6 communication between said wireless terminal and the
7 system.

1 3. The method according to claim 2, wherein the
2 protocol application comprises an application taken from
3 the list consisting of a Wireless Application Protocol
4 (WAP), a Hypertext Transfer Protocol (HTTP) and a
5 Lightweight Directory Access Protocol (LDAP).

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4. The method according to claim 1,
wherein said communication system comprises a
Wireless Local Area Network (WLAN), and
wherein said wireless terminal is continuously
maintained in the network to permit uninterrupted
accessibility of said phonebook database.

5. The method according to claim 1, wherein
identification of caller of an incoming call or person or
party to be called includes showing at least one of name
and affiliation and, when stored in the phonebook
database, showing picture of person on a display of said
wireless terminal.

6. The method according to claim 1,
wherein said communication system comprises a
Wireless Local Area Network (WLAN) and said phonebook
database is provided in the network, and
wherein the instruction to search said
phonebook database to identify the name of caller of said
incoming call or at least one of a phone number and
destination of said outgoing call to be made is effected
over said WLAN and an Internet Protocol (IP)-based online
link-up of said wireless terminal and the network and
comprises:

12 instructing the system, to start a phonebook
13 application, and
14 performing search query of said phonebook
15 database to identify caller of an incoming call or
16 performing one or a successive number of new or modified
17 search queries, as deemed appropriate by the terminal
18 user, through a user interface (UI) provided at said
19 wireless terminal to locate the phone number and
20 destination of a call to be made.

1 7. The method according to claim 6, wherein said
2 phonebook application is commenced when, for an incoming
3 call, the phone number is determined not to be locally
4 stored in said wireless terminal and, for an outgoing
5 call, at least one of phone number and destination of the
6 call to be made is determined not to be locally stored in
7 said wireless terminal.

1 8. The method according to claim 6, wherein said
2 phonebook application is a World Wide Web (WWW) IP-based
3 application using Hypertext Transfer Protocol (HTTP) to
4 transmit information between said wireless terminal and a
5 WWW server having access to the phonebook database, and
6 using a Hypertext Mark-up Language (HTML) browser to
7 query a database in said wireless terminal.

1 9. The method according to claim 6, wherein said
2 phonebook application is a Wireless Application Protocol
3 (WAP)-based phonebook application using a WAP browser for
4 Wireless Application Environment (WAE) to access a
5 database in said wireless terminal and a protocol
6 application to access a WAP or WWW server having access
7 to said phonebook database.

1 10. The method according to claim 6, wherein said
2 phonebook application is a query-based contacts
3 application in which Lightweight Directory Access
4 Protocol(LDAP) is used to transmit information between
5 said wireless terminal and a Directory System Agent (DSA)
6 server having access to said phonebook database.

1 11. The method according to claim 6, wherein
2 listings of matched contents associated with each said
3 query are viewed at a user terminal so that client
4 requesting information can make a selection from the
5 listing or instruct the system to make a new or modified
6 query to the phonebook database.

1 12. The method according to claim 11, wherein
2 individual query outcomes are viewed through a browsable
3 window at a user terminal and the like.

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13. The method according to claim 1,
wherein said phonebook database is available
wirelessly to the user terminal through a secured online
access and comprises phone number(s), address(es), name
and picture, if available, and profile information of
personnel/clients of a company or corporation, a company
plant, or organization/association and the like, and
wherein the phone numbers in said phonebook
database comprise phone numbers of office phones,
facsimile phones, cell and mobile phones, pagers and
handheld devices including PDAs (Personal Digital
Assistants) and palm units with and without voice
capability, said phonebook database further comprising
contact addresses and terminal addresses including E-mail
addresses of desktop and portable computers and the like.

14. The method according to claim 13, wherein said
search query associated with the outgoing call to be made
is limited by search criteria employed, said search
criteria comprising any one or more items from the list
consisting of:

a name and contact information including
address, phone number(s), facsimile number(s), an E-mail
address and the like; a title of person in
company/organization; a unit, plant or branch of company;
a project group or work team; a building/site location;

11 picture of person; and a person's administrative
12 assistant.

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1 15. The method according to claim 1, further
2 comprising providing a journal viewing application in
3 which said communication system searches a journal
4 database for background information associated with at
5 least one of a caller of an incoming phone call and a
6 phone number or person/party of an outgoing call to be
7 made and sends results of the background information
8 search to said wireless terminal.

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1 16. The method according to claim 15, wherein the
2 background information stored in said journal database
3 which is available to a user terminal of said system,
4 including said wireless terminal, comprises:
5 previous phone calls, originating and
6 terminating, including dates, times and durations; E-
7 mails; task lists; documents associated with originating
8 or terminating call; a project; a calendar date; and a
9 company or plant associated with originating or
10 terminating call.

1 17. In a communication system having an
2 infrastructure comprising at least one wireless terminal,
3 at least one access point and a wired backbone, a method

4 for providing to each said wireless terminal thereof
5 online access capability to at least a phonebook database
6 of the system comprising:

7 instructing the system to start a phonebook
8 application, wherein for incoming calls the phonebook
9 application commences in response to a phone number
10 identification at user terminal side and for outgoing
11 calls the phonebook application commences through a user
12 interface (UI) of said wireless terminal; and
13 performing a search query of said phonebook
14 database to identify at least one of (i) a caller
15 corresponding to a phone number identification of an
16 incoming call and (ii) at least one of a phone number and
17 destination of an outgoing call to be made.

1 18. The method according to claim 17,
2 wherein said communication system comprises a
3 Wireless Local Area Network (WLAN) and said phonebook
4 database is a network database, and
5 wherein said phonebook application is a World
6 Wide Web (WWW) IP-based application using Hypertext
7 Transfer Protocol (HTTP) to transmit information between
8 said wireless terminal and a WWW server, included in the
9 network, having access to the phonebook database and
10 using a Hypertext Mark-up Language (HTML) browser to
11 query a database in said wireless terminal.

1 19. The method according to claim 17,
2 wherein said communication system comprises a
3 Wireless Local Area Network (WLAN) and said phonebook
4 database is a network database, and
5 wherein said phonebook application is a
6 Wireless Application Protocol (WAP)-based phonebook
7 application using a WAP browser for Wireless Application
8 Environment (WAE) to access a database in said wireless
9 terminal and a transport interface to access a WAP or WWW
10 server, included in the network, having access to said
11 phonebook database.

1 20. The method according to claim 17,
2 wherein said communication system comprises a
3 Wireless Local Area Network (WLAN) and said phonebook
4 database is a network database, and
5 wherein said phonebook application is a query-
6 based contacts application in which Lightweight Directory
7 Access Protocol (LDAP) is used to transmit information
8 between said wireless terminal and a Directory System
9 Agent (DSA) server, included in the network, having
10 access to said phonebook database.

1 21. The method according to claim 17,
2 wherein said communication network comprises a
3 Wireless Local Area Network (WLAN) and said phonebook
4 database is provided in the network, and
5 wherein said phonebook application is performed
6 using a protocol application comprising an application
7 taken from the list consisting of Wireless Application
8 Protocol (WAP), Hypertext Transfer Protocol (HTTP), and
9 Lightweight Directory Access Protocol (LDAP).

1 22. The method according to claim 17, wherein said
2 phonebook application is commenced when, for an incoming
3 call, the phone number is determined not to be locally
4 stored in said wireless terminal and, for an outgoing
5 call, at least one of the phone numbers and destination
6 of the call to be made is determined not to be locally
7 stored in said wireless terminal.

1 23. The method according to claim 17, wherein said
2 search query associated with the outgoing call to be made
3 comprises:
4 at least one query, based on a search criteria
5 sent through the user interface of said wireless
6 terminal, to find at least one of a phone number and name
7 of a person or party to be called, said search query
8 conforming to a Wireless Local Area Network (WLAN)-based

9 transport protocol or a WLAN-based protocol over the
10 internet and performed by a server in the network having
11 access to said phonebook data base.

1 24. The method according to claim 23,
2 wherein said phonebook database is available
3 wirelessly to a user terminal through a secured online
4 access over the internet and comprises phone number(s),
5 name and profile information of personnel/clients of a
6 company or corporation, a company plant, or
7 organization/association and the like, and
8 wherein the phone numbers in said phonebook
9 database comprise phone numbers of office phones,
10 facsimile phones, cell and mobile phones, pagers and
11 handheld devices including Personal Digital Assistants
12 (PDAs) and palm units with and without voice capability,
13 said phonebook database further comprising contact
14 addresses and terminal addresses including E-mail
15 addresses of desktop and portable computers and the like.

1 25. The method according to claim 24, wherein said
2 search criteria of said search query associated with the
3 outgoing call to be made contains any one or more items
4 from the list consisting of: a name and contact
5 information including address, phone number(s), facsimile
6 number(s) an E-mail address and the like; a title of

7 person in company/organization; a unit, plant or branch
8 of company; a project group or work team; a building/site
9 location; picture of person; and a person's
10 administrative assistant.

1 26. The method according to claim 23, wherein
2 listings of matched contents associated with each said
3 query are viewed at a user terminal so that client
4 requesting information can make a selection from the
5 listing or instruct the system to make a new or modified
6 query to the phonebook database.

1 27. The method according to claim 17, further
2 comprising providing a journal viewing application in
3 which said communication system searches a journal
4 database for background information associated with at
5 least one of a caller of an incoming phone call and a
6 phone number or person/party of an outgoing call to be
7 made and sends results of the background information
8 search to said wireless terminal.

1 28. The method according to claim 27, wherein the
2 background information stored in said journal database
3 which is available to a user terminal of said system,
4 including said wireless terminal, comprises:

5 previous phone calls, originating and
6 terminating, including dates, times and durations; E-
7 mails; task lists; documents associated with originating
8 or terminating call; a project; a calendar data; and a
9 company or plant associated with originating or
10 terminating call.

1 29. A method for providing a wireless terminal of
2 communication system access to at least a journal
3 database, comprising:
4 instructing the system to start a journal
5 viewing application to obtain background information
6 related to occurrence of an incoming call or an outgoing
7 call to be made; and
8 performing a search query of said journal
9 database to locate the background information, the search
10 query including a call identification process in which
11 either an incoming call phone number or at least one of a
12 phone number and name of person or party of an outgoing
13 call to be made is matched to background information
14 associated therewith in said journal database; and
15 presenting the matched background information
16 to said wireless terminal.

1 30. The method according to claim 29, wherein the
2 background information which is stored in said journal

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4 said wireless terminal is continuously
5 maintained in the network to permit uninterrupted
6 accessibility of said journal database.

1 34. The method according to claim 29, wherein said
2 journal viewing application is a World Wide Web (WWW) IP-
3 based application using Hypertext Transfer Protocol
4 (HTTP) to transmit information between said wireless
5 terminal, and a WWW server, included in the network,
6 having access to said journal database and using a
7 Hypertext Mark-up Language (HTML) browser to query a
8 database in said wireless terminal.

1 35. The method according to claim 29, wherein said
2 journal viewing application is a Wireless Application
3 Protocol (WAP)-based application using a WAP browser for
4 Wireless Application Environment (WAE) to access a
5 database in said wireless terminal and using a transport
6 interface to access a WAP server, included in the
7 network, having access to said journal database.

1 36. The method according to claim 29, wherein said
2 journal viewing application is a query-based contacts
3 application in which Lightweight Directory Access
4 Protocol (LDAP) is used to transmit information between
5 said wireless terminal and a Directory System Agent (DSA)

6 server, included in the network, having access to said
7 journal database.

1 37. The method according to claim 29, wherein
2 access to said journal database is effected using a
3 protocol application.

1 38. The method according to claim 37, wherein the
2 protocol application comprises an application taken from
3 the list consisting of a Wireless Application Protocol
4 (WAP), a Hypertext Transfer Protocol (HTTP), and a
5 Lightweight Directory Access Protocol (LDAP) interface.

6 39. A system to provide a wireless terminal of a
7 network access to a phonebook database of the network,
8 comprising:

9 a network having at least one server and at
10 least a phonebook database;

11 at least one wireless terminal each of which is
12 operably connected to said network;

13 at least one transport interface to allow
14 communication between each wireless terminal and said
15 network; and

16 a phonebook application, included in said
17 network, said phonebook application being such that (a)
18 for an incoming call, the network is instructed to search

19 said phonebook database to identify name of caller, and
20 (b) for an outgoing call, the network is instructed to
21 search said phonebook database to locate at least one of
22 a phone number and name of person or party of a call to
23 be made, wherein the result of each search is presented
24 at said wireless terminal.

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40. The system according to claim 39, wherein for
2 incoming calls said phonebook application commences in
3 response to a phone number identification at said
4 wireless terminal and for outgoing calls, said phonebook
5 application commences through a user interface (UI) of
6 said wireless terminal.

41. The system according to claim 40, wherein said
2 wireless terminal is continuously maintained in the
3 network to permit uninterrupted communication between
4 said wireless terminal and a server associated with said
5 phonebook database.

42. The system according to claim 41, wherein said
2 transport interface comprises an interface taken from the
3 list consisting of a Wireless Application Protocol (WAP)
4 interface, a Hypertext Transfer Protocol (HTTP) interface
5 and a Lightweight Directory Access Protocol (LDAP)
6 interface.

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1 43. The system according to claim 42, wherein said
2 wireless terminal comprises a terminal taken from the
3 list consisting of a wireless phone, a personal digital
4 assistant (PDA), a palmtop device, and a portable
5 computer with wireless capability and phone hookup
6 capability.

1 44. The system according to claim 43, wherein voice
2 communication between a wireless terminal and another
3 user terminal in said network is effected using Voice
4 Over Internet Protocol (VoIP).

1 45. The system according to claim 43, wherein said
2 wireless terminal has both voice and display capability
3 in which voice communication is effected through a
4 headset attachment part of said wireless terminal to
5 allow viewing a wireless terminal display while
6 exchanging voice information.

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1 46. The system according to claim 39, wherein said
2 network further includes a journal viewing application
3 and a journal database, said journal viewing application
4 instructing the network to search said journal database
5 for background information associated with at least one
6 of a caller of an incoming phone call and a phone number

7 or person/party of an outgoing call to be made and sends
8 results of the background information search to said
9 wireless terminal.

1 47. The system according to claim 46,
2 wherein the background information stored in
3 said journal database which is available to each user
4 terminal of said network, including said wireless
5 terminal, having display capability, comprises:
6 previous phone calls, originating and
7 terminating, including dates, times and durations; E-
8 mails; task lists; documents associated with originating
9 or terminating call; a project; a calendar data; and a
10 company or plant associated with originating or
11 terminating call.

1 48. The system according to claim 47,
2 wherein contents of said phonebook database and
3 of said journal database are available wirelessly to said
4 user terminal through a secured online access over the
5 internet,
6 wherein said phonebook database comprises phone
7 number(s), name and profile information of
8 personnel/clients of a company or corporation, a company
9 plant, or organization/association and the like, and

10 wherein the phone numbers in said phonebook
11 database comprise phone numbers of office phones,
12 facsimile phones, cell and mobile phones, pagers and
13 handheld devices including PDAs (Personal Digital
14 Assistants) and palm units with and without voice
15 capability, said phonebook database further comprising
16 contact addresses and terminal addresses including E-mail
17 addresses of desktop and portable computers and the like.

1 49. The system according to claim 48, wherein one
2 or more search queries associated with an outgoing call
3 are made of said phonebook database, each search query is
4 limited to search criteria inputted at a User Interface
5 (UI) of said wireless terminal and comprises any one or
6 more items from the list consisting of:

7 a name and contact information including
8 address, phone number(s), facsimile number(s), an E-mail
9 address and the like; a title of person in
10 company/organization; a unit, plant or branch of company;
11 a project group or work team; a building/site location;
12 picture of person; and a person's administrative
13 assistant.

1 50. The system according to claim 42, wherein said
2 network comprises a Wireless Local Area Network (WLAN)
3 including a plurality of wireless terminals, at least one

4 access point, a server farm and a backbone infrastructure
5 to support each wireless terminal, each access point and
6 each network server.

1 51. The system according to claim 41, wherein said
2 phonebook application is a World Wide Web (WWW) IP-based
3 application using Hypertext Transfer Protocol (HTTP) to
4 transmit information between a wireless terminal and a
5 WWW server having the phonebook database and using a
6 Hypertext Mark-up Language (HTML) browser to query a
7 database in said wireless terminal.

1 52. The system according to claim 41, wherein said
2 phonebook application is a Wireless Application Protocol
3 (WAP)-based phonebook application using a WAP browser for
4 Wireless Application Environment (WAE) to access a
5 database in a wireless terminal and transport interface
6 to access a WAP or WWW server having access to said
7 phonebook database.

1 53. The system according to claim 41, wherein said
2 phonebook application is a query-based contacts
3 application in which Lightweight Directory Access
4 Protocol (LDAP) is used to transmit information between a
5 wireless terminal and a Directory System Agent (DSA)
6 server having access to said phonebook database.

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1 54. A system to provide a wireless terminal of a
2 network access to at least a journal database of the
3 network, comprising:
4 a network having at least one server and at
5 least a phonebook database;
6 at least one wireless terminal each of which is
7 operably connected to said network;
8 at least one transport interface to allow
9 communication between each wireless terminal and said
10 network; and
11 a journal viewing application, included in said
12 network, said journal viewing application detailing
13 background information related to an incoming call or an
14 outgoing call to be made and including
15 (i) performing a search query of said journal
16 database to locate the background information, the search
17 query including a call identification process in which
18 either an incoming call phone number or at least one of a
19 phone number and name of person or party of an outgoing
20 call to be made is matched to background information
21 associated therewith in said journal database, and
22 (ii) presenting the matched background
23 information to said wireless terminal.

1 55. A system according to claim 54,
2 wherein the background information which is
3 stored in said journal database and is available to a
4 user terminal of said system, including said wireless
5 terminal, comprises:
6 previous phone calls, originating and
7 terminating, including dates, times and durations; E-
8 mails; task lists; documents associated with originating
9 or terminating call; a project; a calendar data; and a
10 company or plant associated with originating or
11 terminating call.

1 56. A system according to claim 55, wherein the
2 background information presented to said wireless
3 terminal is filtered and organized, including having
4 headings, through settings chosen by the terminal user,
5 the filtered settings may be varied for originating and
6 terminating calls.

1 57. A system according to claim 56, wherein
2 information displayed on a wireless terminal comprises:
3 recent phone calls, originating and
4 terminating; task headings; E-mail headings, and related
5 documents.

1 58. A system according to claim 57, wherein said
2 network comprises a plurality of wireless terminals, at
3 least one access point, a server farm and a backbone
4 infrastructure to support each wireless terminal, each
5 access point and each network server.

1 59. The system according to claim 58, wherein said
2 journal viewing application is a World Wide Web (WWW) IP-
3 based application using Hypertext Transfer Protocol
4 (HTTP) to transmit information between said wireless
5 terminal and a WWW server having access to said journal
6 database, and using a Hypertext mark-up Language (HTML)
7 browser to query a database in said wireless terminal.

1 60. The system according to claim 58, wherein said
2 journal viewing application is a Wireless Application
3 Protocol (WAP)-based journal viewing application using a
4 WAP browser for Wireless Application Environment (WAE) to
5 access database in said wireless terminal and using a
6 transport interface to access a WAP server having access
7 to said journal database.

1 61. The system according to claim 58, wherein said
2 journal viewing application is a query-based contacts
3 application in which Lightweight Directory Access

4 Protocol (LDAP) is used to transmit information between
5 said wireless terminal and a Directory System Agent
6 (DSA).

1 62. The system according to claim 54, wherein said
2 wireless terminal further has voice over internet
3 protocol (VoIP) capability.

1 63. The system according to claim 54, wherein said
2 wireless terminal comprises a terminal taken from the
3 list consisting of a wireless phone, a Personal Digital
4 Assistant (PDA), a palmtop device, and a portable
5 computer with wireless capability and with/without phone
6 hookup capability.

1 64. A method for placing an outgoing call from a
2 wireless terminal of a communication system having one or
3 more wireless terminals and at least a phonebook
4 database, comprising:

5 instructing the system to search said phonebook
6 database to locate at least one of a phone number and
7 name of person or party to be called;

8 and sending results of the search to said
9 wireless terminal such that

10 (i) if the phone number/destination of
11 the call to be made is found in the database, the same is
12 presented at said wireless terminal, and
13 (ii) if the phone number/destination is
14 not found in an initial search query of the database, the
15 wireless terminal user, optionally, may modify the search
16 query of the system to the phonebook database or
17 terminate identification process.

1 65. The method according to claim 64,
2 wherein said communication system comprises a
3 Wireless Local Area Network (WLAN),
4 wherein said wireless terminal is continuously
5 maintained in the network to permit uninterrupted
6 accessibility of at least said phonebook database, and
7 wherein a protocol application is used to allow
8 communication between said wireless terminal and the
9 network, the protocol application comprising an
10 application taken from the list consisting of a Wireless
11 Application Protocol (WAP), a Hypertext Transfer Protocol
12 (HTTP) and a Lightweight Directory Access Protocol
13 (LDAP).

1 66. A method for caller name identification of an
2 incoming call to a wireless terminal of a network having

3 one or more wireless terminals and at least a phonebook
4 database, comprising:
5 identifying phone number of a caller;
6 making search query of said phonebook database
7 by said network; and
8 sending results of the search query to said
9 wireless terminal such that
10 (1) if caller name search query is
11 successful, identification of caller is presented at said
12 wireless terminal along with background information of
13 caller, when background information of that caller exists
14 in a network database.

67. The method according to claim 66,
wherein said network comprises a Wireless Local
Area Network (WLAN),
wherein said wireless terminal is continuously
maintained in the network to permit uninterrupted
accessibility of at least said phonebook database, and
wherein a protocol application is used to allow
communication between said wireless terminal and the
network, the protocol application comprising an
application taken from the list consisting of a Wireless
Application Protocol (WAP), a Hypertext Transfer Protocol
(HTTP) and a Lightweight Directory Access Protocol
(LDAP).